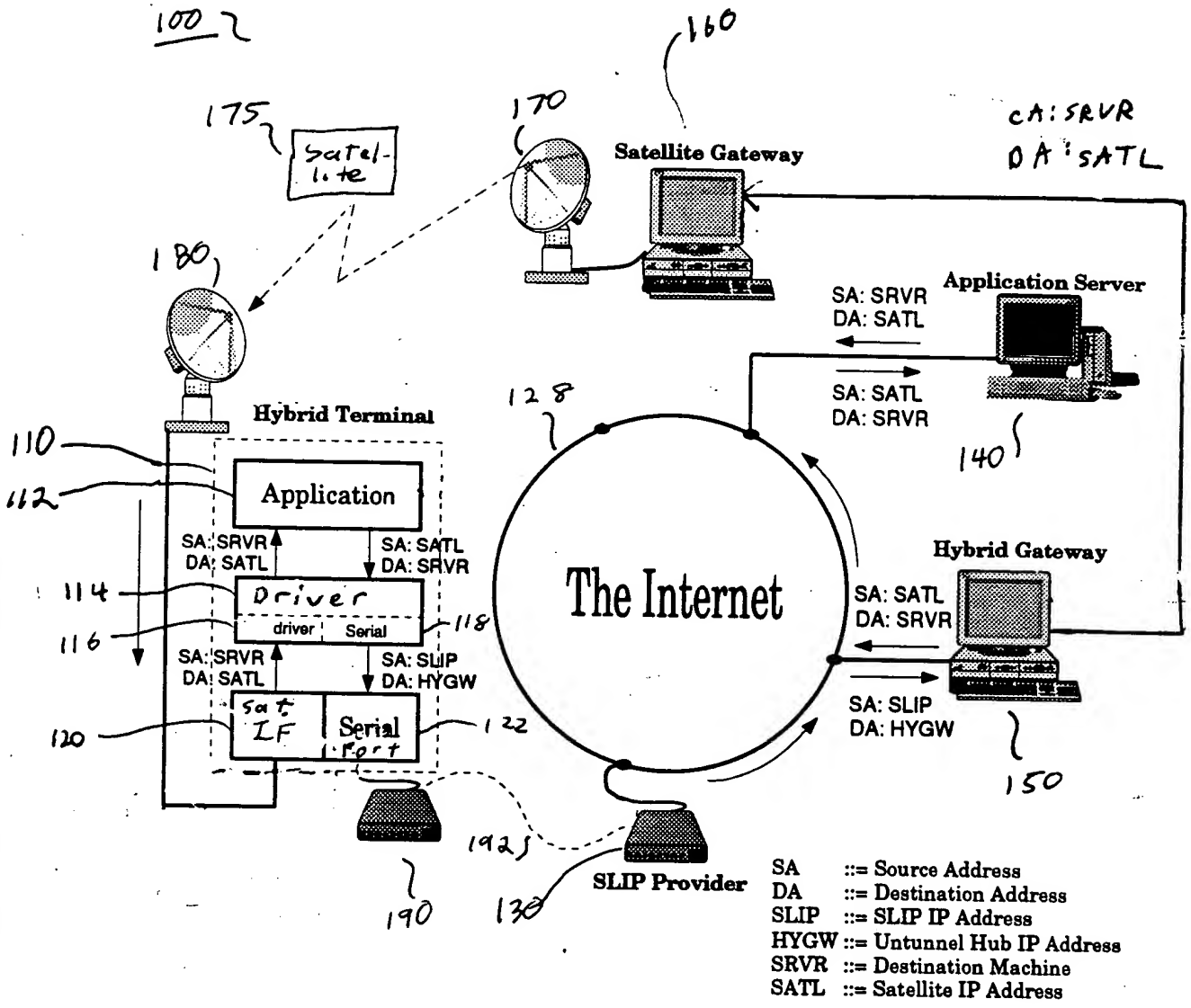

100
175
Satel-lite
160
170
Satellite Gateway
SA: SRVR
DA: SATL
180
Application Server
SA: SRVR
DA: SATL
SA: SATL
DA: SRVR
140
128
Hybrid Terminal
110
Application
112
SA: SRVR
DA: SATL
SA: SATL
DA: SRVR
114
Driver
116
driver
Serial
118
SA: SRVR
DA: SATL
SA: SLIP
DA: HYGW
120
Sat IF
Serial Port
122
The Internet
Hybrid Gateway
SA: SATL
DA: SRVR
SA: SLIP
DA: HYGW
150
192
190
130
SLIP Provider
SA ::= Source Address
DA ::= Destination Address
SLIP ::= SLIP IP Address
HYGW ::= Untunnel Hub IP Address
SRVR ::= Destination Machine
SATL ::= Satellite IP Address

Fig. 1

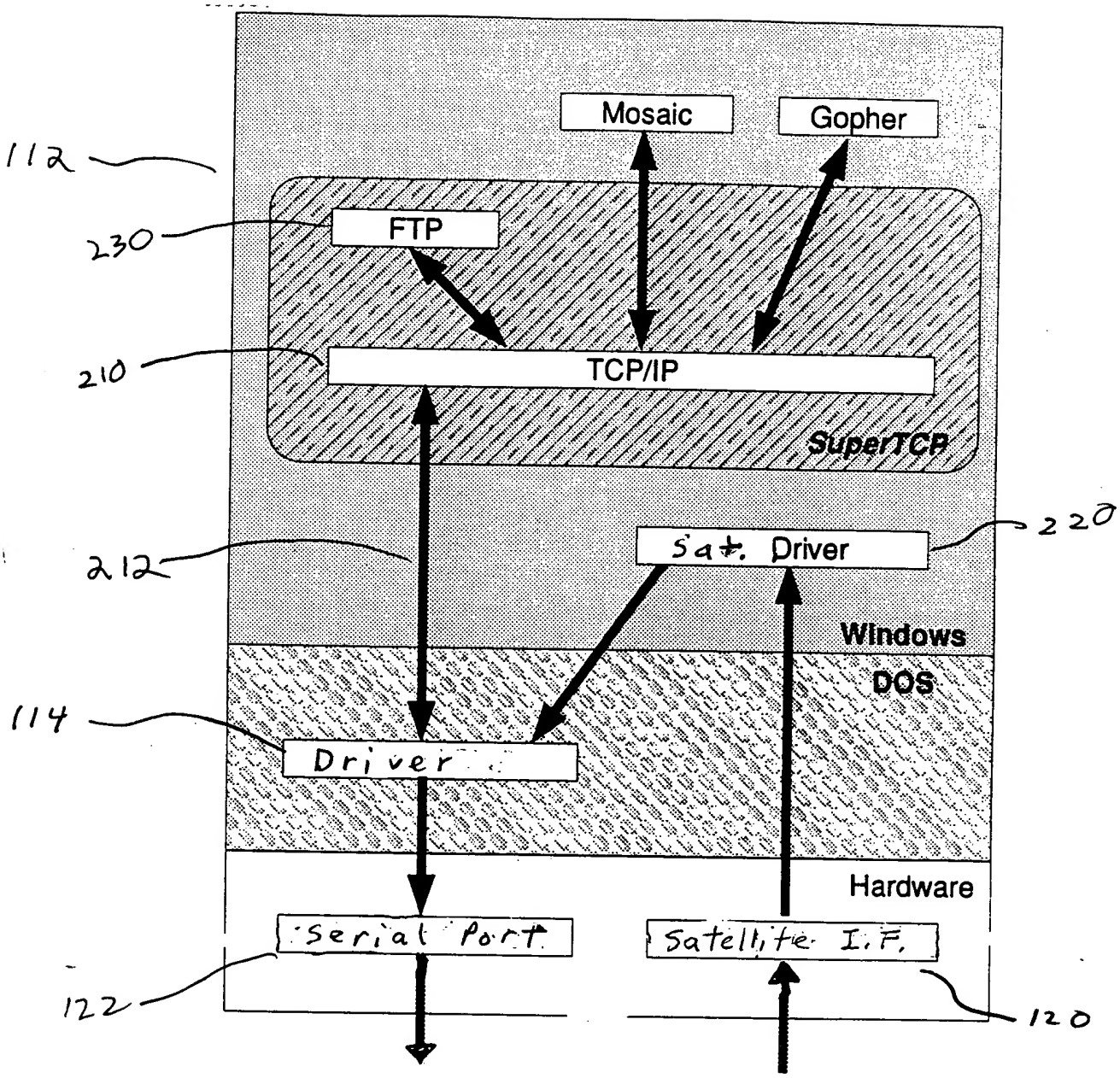

Mosaic
Gopher
112
FTP
230
210
TCP/IP
SuperTCP
212
Sat. Driver
220
Windows
DOS
114
Driver
Hardware
Serial Port
Satellite I.F.
122
120

Fig. 2

05504780.0700

310

Normal IP Packet

vers	hlen	service type	total packet length	
identification number			flags	fragment offset
time to live		protocol	header checksum	
source IP address				
destination IP address				
IP options (if any)				padding
DATA				

bit 0 bit 32

Fig. 3

0550-0150.0050

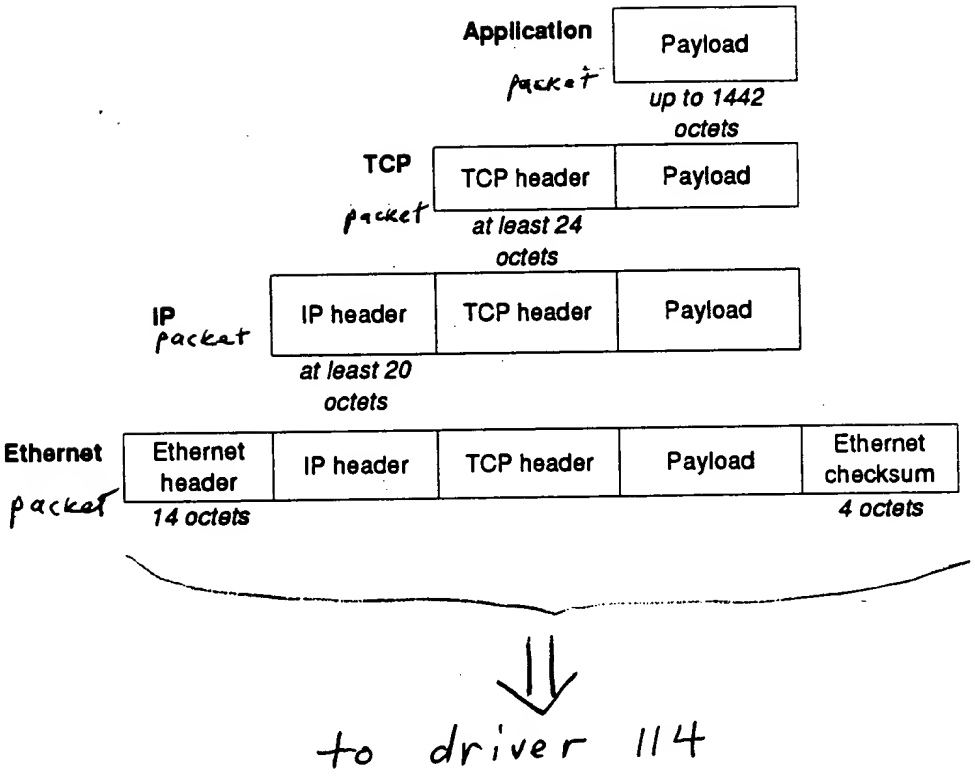


Fig. 4

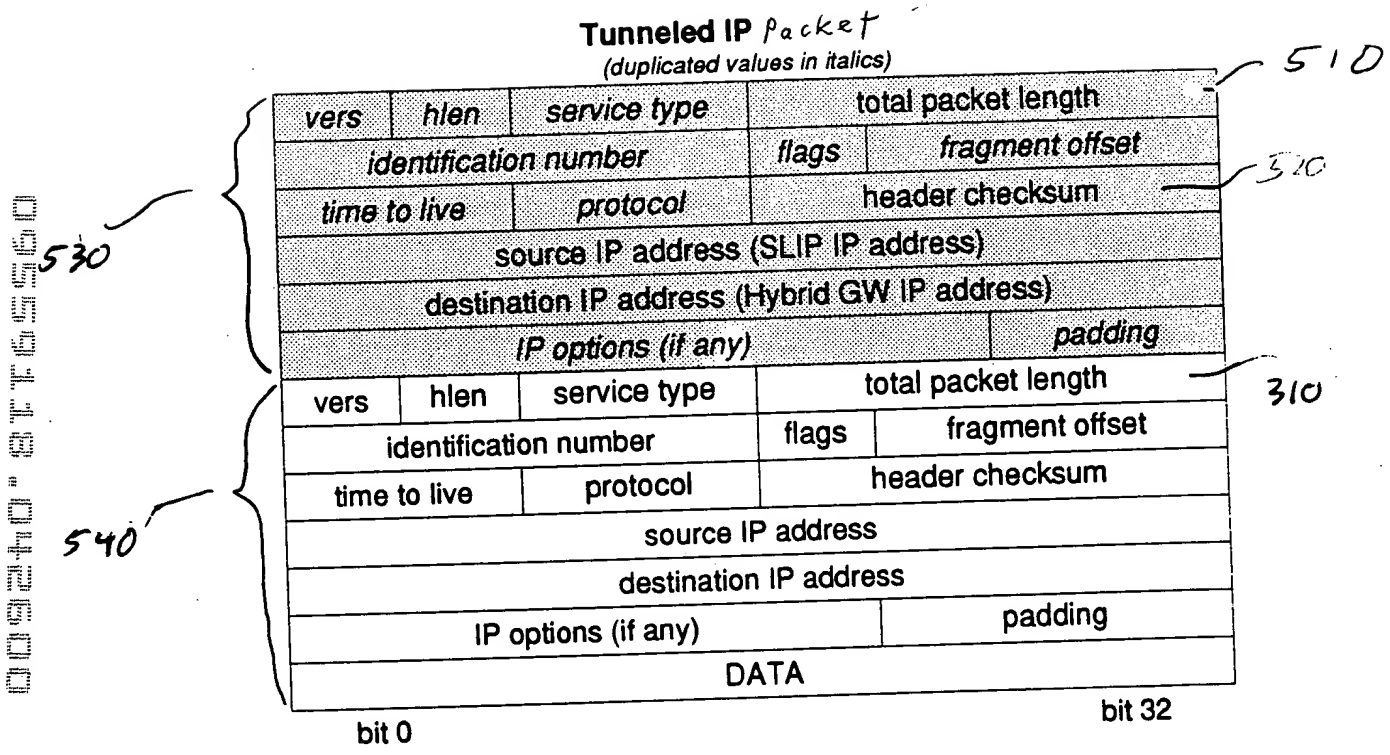

Tunneled IP Packet
(duplicated values in italics)
510
vers
hlen
service type
total packet length
identification number
flags
fragment offset
320
time to live
protocol
header checksum
source IP address (SLIP IP address)
destination IP address (Hybrid GW IP address)
IP options (if any)
padding
530
vers
hlen
service type
total packet length
310
identification number
flags
fragment offset
time to live
protocol
header checksum
source IP address
destination IP address
IP options (if any)
padding
DATA
540
bit 0
bit 32

Fig. 5

0092h0 BTT65560

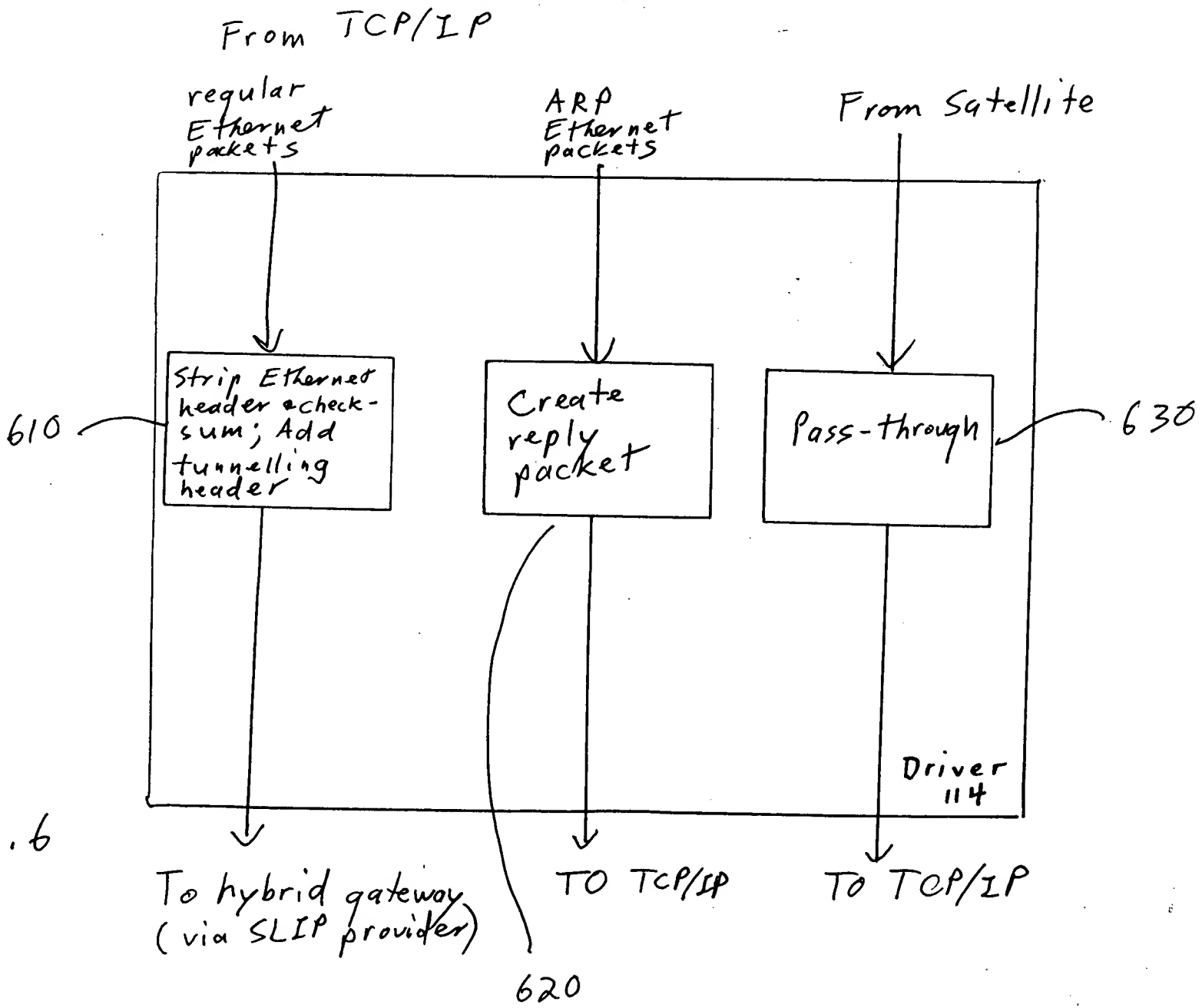


Fig. 6

05534.0420

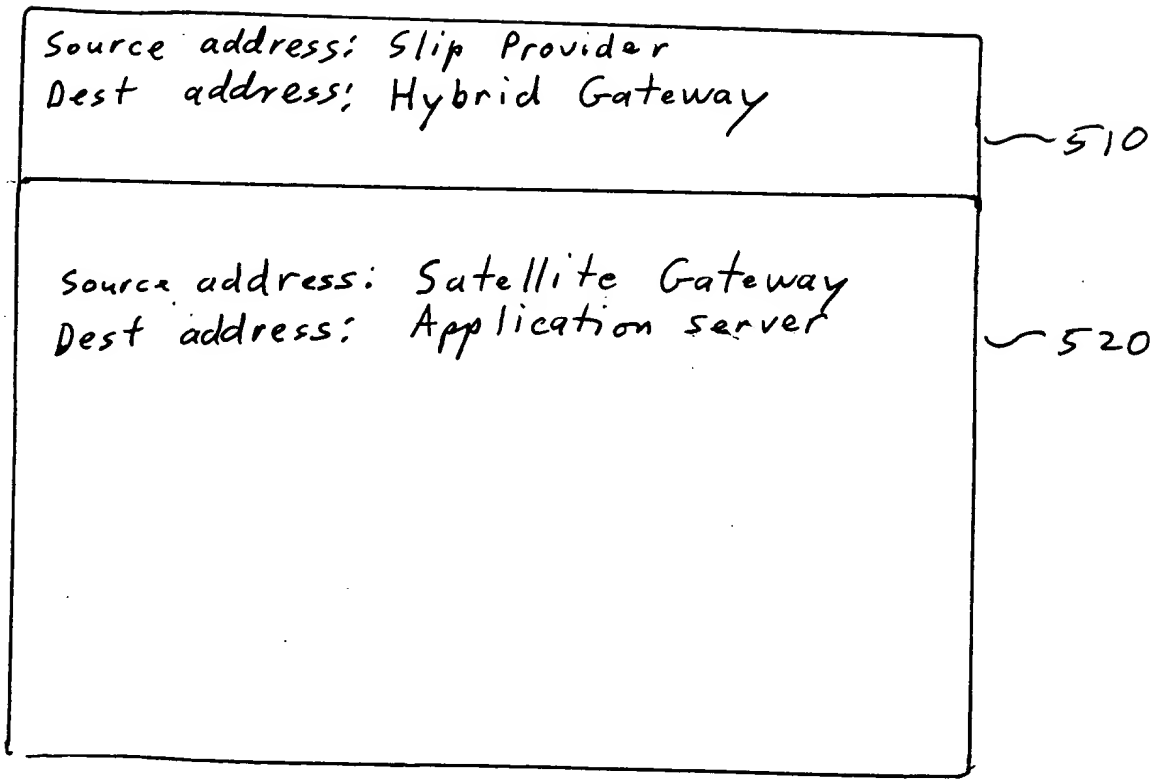


Fig. 7

driver

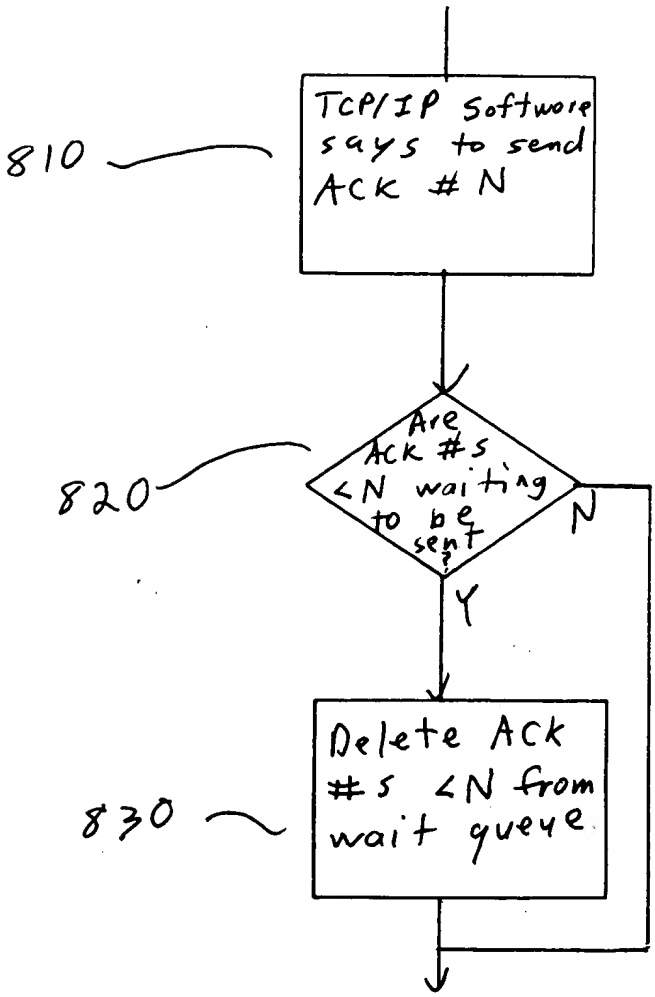


Fig. 8

Docket: 95-0350

05534.0050

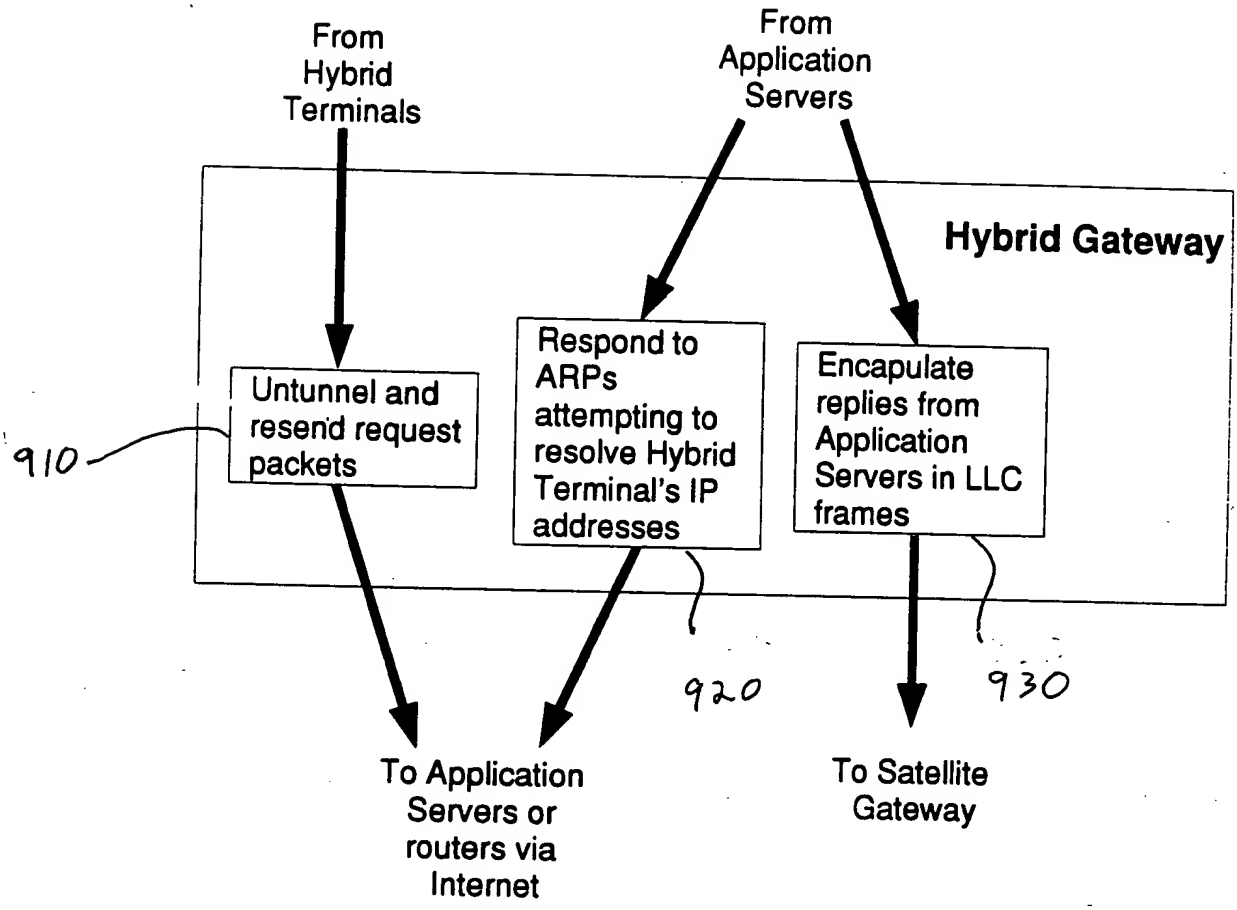
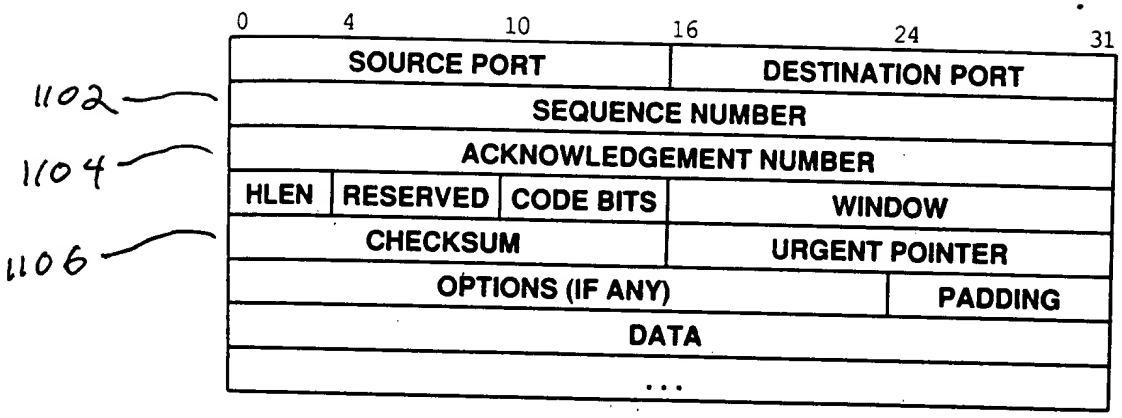


Fig. 9

1030 LLC Header	1020 Satellite Header	1010 IP datagram(payload)
Delivers packet to Satellite Gateway *Stripped off in Satellite Gateway*	Used to ID correct receiver terminal *Stripped off in BIC driver in User Terminal*	Destined for TCP/IP package in User Terminal

Fig. 10

05054680.052500



TCP Packet

Fig. 11

0550460

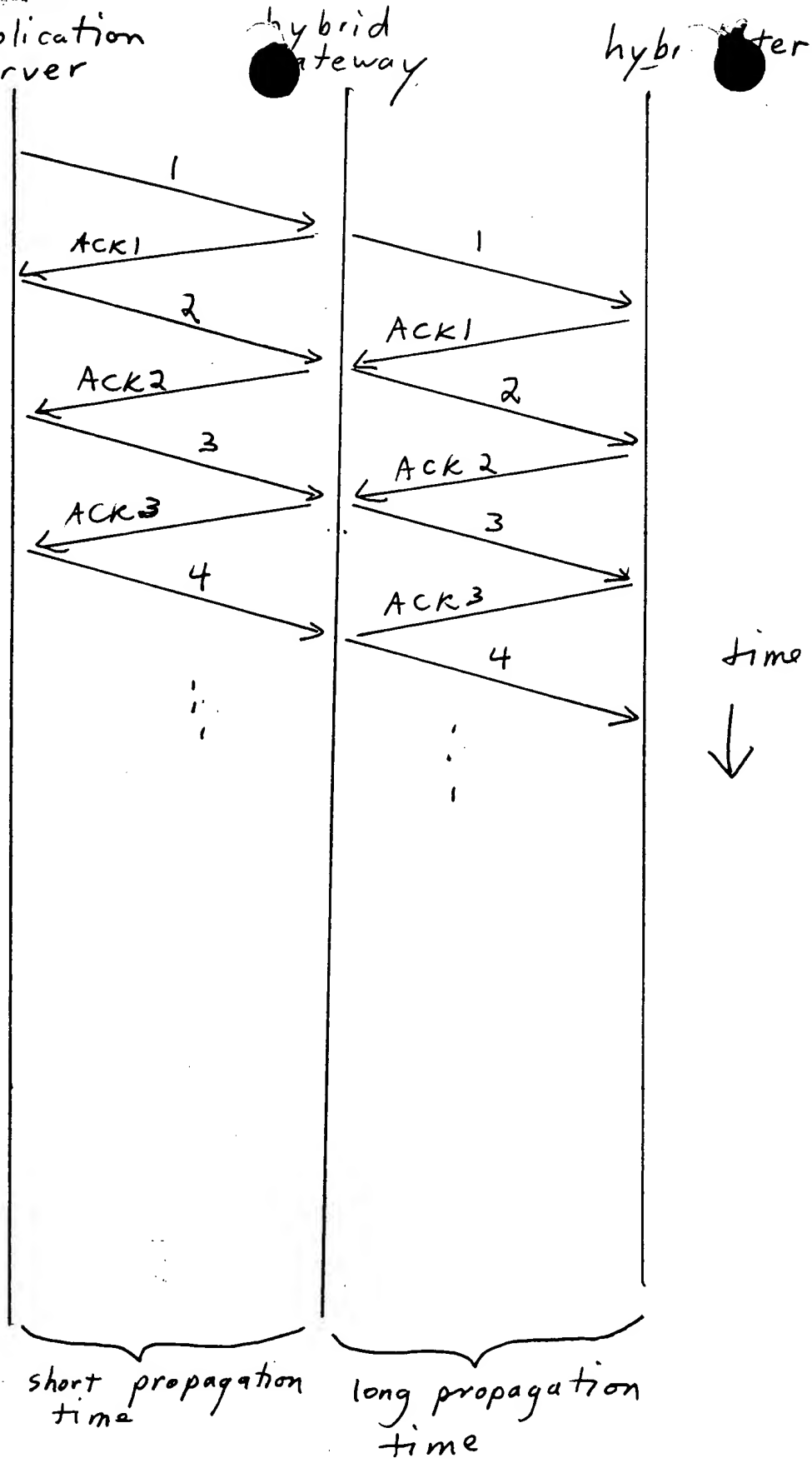


Fig. 12.

05504.0250

Fig 13(a)

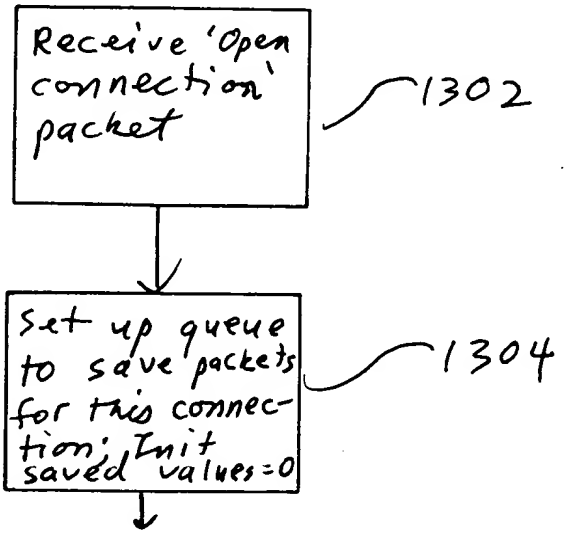


Fig. 13(b)

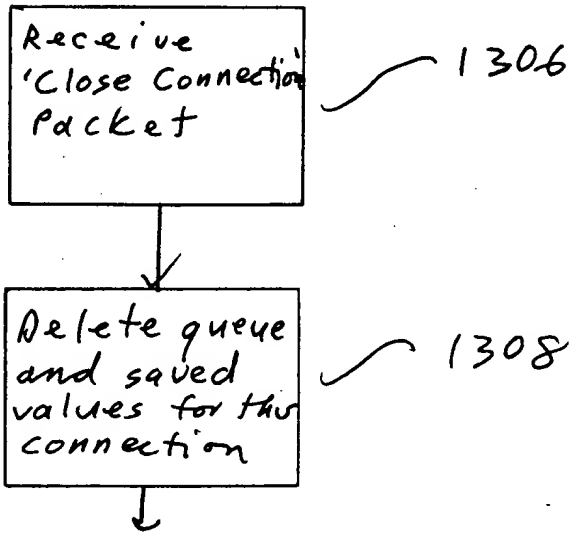
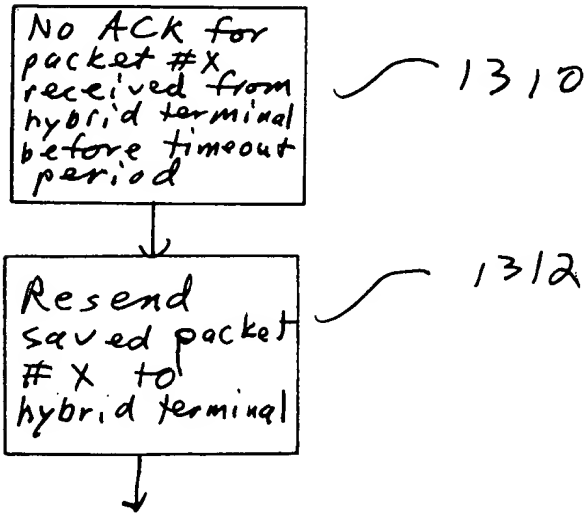


Fig. 13(c)



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Hybrid Gateway

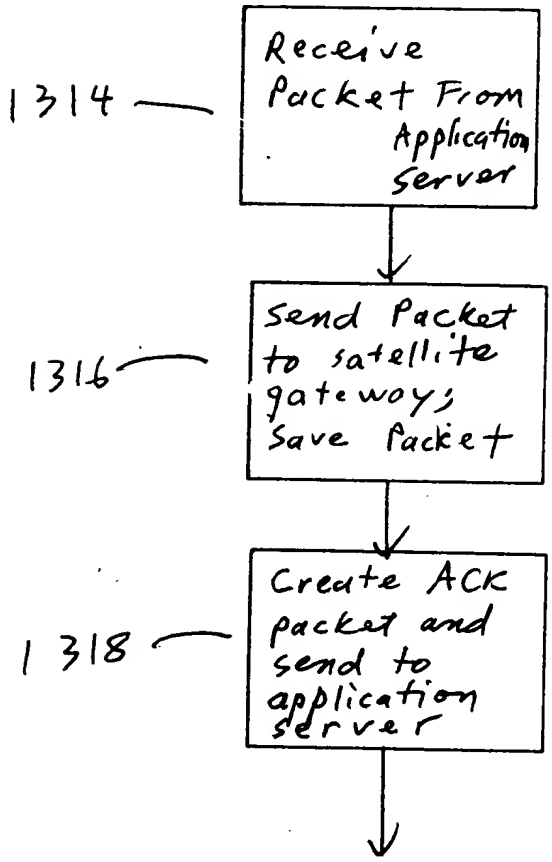

Fig. 13(d)

0550470.042500

Hybrid Gateway

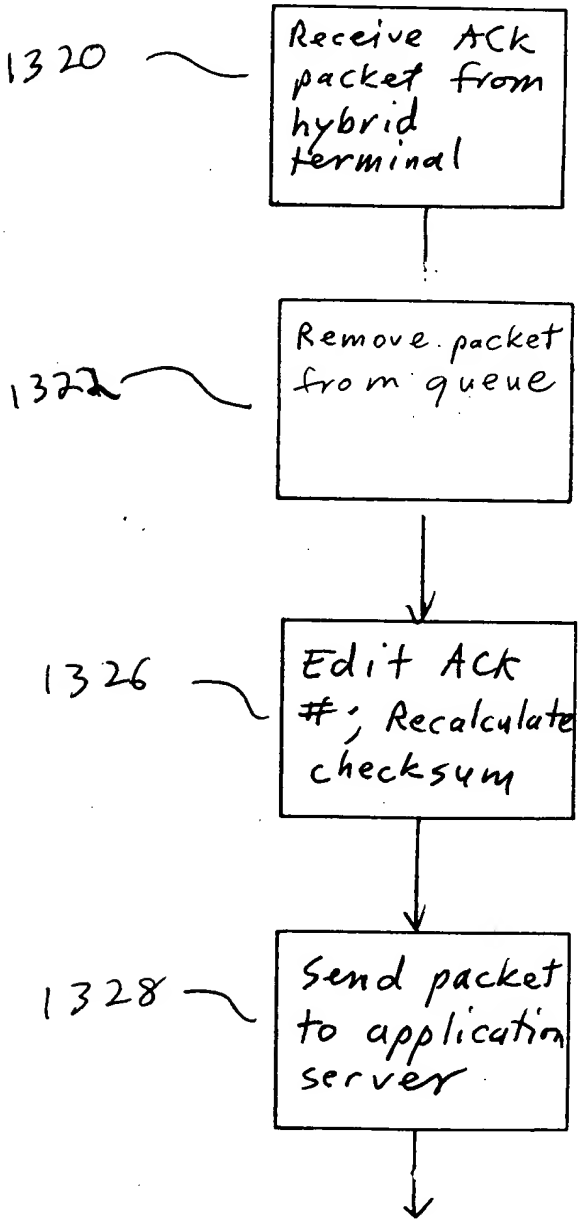

Fig. 13(e)

05554-0-0250